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10/633,440	08/01/2003	Michael T. Roeder	200313512-1	4552

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER	
YUEN, KAN	
ART UNIT	**PAPER NUMBER**
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/633,440	ROEDER, MICHAEL T.	
	Examiner	Art Unit	
	Kan Yuen	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 9-21* is/are rejected.

7)☒ Claim(s) *8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *08/01/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 13, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5, lines 2,4 and 5, the variables "Lm", "Am" are not defined, which makes the claim vague and indefinite.

In claim 13, line 1, the term "the calculation circuitry" has no antecedent basis. Similar problem exist in claim 14.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 9-12, and 15-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Mittal et al. (Pat No.: 7035212).

In claim 1, Mittal et al. disclosed the method of receiving a packet that is placed into a specific class of service (COS) group (see fig. 6, Packet D), as shown in the drawing, the received packet is specified a COS value of 5 and the length of a packet 3L (see column 8, lines 46-56); determining a fabric-adjusted meter modifier depending on technology of a limiting uplink being used (see fig. 6, Ingress Traffic Manager 16, and Ingress Memory Hub 18). In the drawing, the Traffic Manager 16 updates the COS value Ingress Memory Hub 18 based on the total packets and total length of the packet; and adding the fabric-adjusted meter modifier to a meter corresponding to the specific COS group (see column 9, lines 1-10). In the reference, after the Traffic Manager 16 modified the COS value, it will update the value to Ingress Memory Hub 18. The modifying meter can be interpreted as the Traffic Manager 16. By isolating the memory operations and memory technology from the Ingress traffic managers 16, the circuitry in the ingress traffic manager 16 is simplified. As seen in fig. 1B, network 32 can be a LAN, which involved with Ethernet link technology, and the Traffic Manager 16 is depending on the Ethernet technology.

Regarding to claim 2, Mittal et al. also disclosed the method of the fabric-adjusted meter modifier is also dependent on a payload size of the packet (see fig. 6, Ingress Traffic Manager 16, and Ingress Memory Hub 18). In the drawing, the Traffic Manager 16 updates the COS value to Ingress Memory Hub 18 based on the total

packets and total length of the packet. The payload size can be referred as packet length.

Regarding to claim 3, Mittal et al. also disclosed the method of determining if the meter exceeds a black-type limit for the specific COS group; and if the black-type limit is exceeded, then dropping the packet (see drawing 3, Egress Traffic Manager 28, and Egress Memory Hub 26, and see column 6, lines 16-25). In the drawing, if the number of packets or length of a particular egress flow ID gets too large, the packets will be dropped. The black-type limit can be referred to, as the limit of number of packets or length of a packet gets too large, and will be subjected to packet drop.

Regarding to claim 4, Mittal et al. also disclosed the method of determining if the meter exceeds a red-type limit for the specific COS group; and if the red-type limit is exceeded, then lowering a priority level of the packet (see fig. 6, Ingress Traffic Manager 16, and Ingress Memory Hub 18, and see column 9, lines 1-10). In the reference, the red-type limit can be referred to as a COS level being reduce based on the limit of number of packets and the sizes of the packets increased. The example in column 9, lines 1-10 teaches that the COS level being reduced from 5 to 4, based on the number of received packets, and the length of the packets.

Regarding to claim 5, Mittal et al. also disclosed the method of determining if the COS meter exceeds limit Lm for the specific COS group and if the limit Lm is exceeded then perform an action, Am, specified for limit Lm (see drawing 3, Egress Traffic Manager 28, and Egress Memory Hub 26, and see column 6, lines 16-25). In the

drawing, if the number of packets or length of a particular egress flow ID gets too large, which can be referred to as the limit, then the action is that the packets will be dropped.

Regarding to claim 6, Mittal et al. also disclosed the method of determining the fabric-adjusted meter modifier comprises retrieving a modifier value associated with the payload size from a technology-specific look-up table (see fig. 6, Ingress Traffic Manager 16, and Ingress Memory Hub 18). In the drawing, Ingress Memory Hub 18 stores the received packet information to Ingress Memory 20 including packet length and COS values. The Ingress Traffic Manager 16 obtains those information from the Ingress Memory 20. The payload size can be referred as packet length, and the Ingress Memory 20 can be the look up table.

Regarding to claim 9, Mittal et al. also disclosed the method of a port for receiving a packet that is placed into a specific COS group (see fig. 6, from source port #3); In the fig. 6, packet is received from port #3. Calculation circuitry configured to determine a fabric-adjusted meter modifier depending on a technology of an uplink being used (see fig. 6, Ingress Traffic Manager 16, and Ingress Memory Hub 18); update circuitry configured to add the fabric-adjusted meter modifier to a meter corresponding to the specific COS group (see column 9, lines 1-10). In the reference, the Ingress Traffic Manager 16 can be interpreted as the modifying meter.

Regarding to claim 10, Mittal et al. also disclosed the method of the fabric-adjusted meter modifier is also dependent on a payload size of the packet (see fig. 6, Ingress Traffic Manager 16, and Ingress Memory Hub 18). In the drawing, the Traffic Manager 16 updates the COS value to Ingress Memory Hub 18 based on the total

packets and total length of the packet. The payload size can be referred as packet length.

Regarding to claim 11, Mittal et al. also disclosed the method of comparison circuitry configured to determine if the meter exceeds a black-type limit for the specific COS group; and non-forwarding circuitry for dropping the packet if the black-type limit is exceeded. (see drawing 3, Egress Traffic Manager 28, and Egress Memory Hub 26, and see column 6, lines 16-25). In the drawing, if the number of packets or length of a particular egress flow ID gets too large, the packets will be dropped. The black-type limit can be referred to, as number of packets or length or a packet gets too large, and will be subjected to packet drop.

Regarding to claim 12, Mittal et al. also disclosed the method of comparison circuitry configured to determine if the meter exceeds a red-type limit for the specific COS group; and prioritization circuitry for lowering a priority level of the packet if the red-type limit is exceeded. (see fig. 6, Ingress Traffic Manager 16, and Ingress Memory Hub 18, and see column 9, lines 1-10). In the reference, the red-type limit can be referred to as a COS level being reduce based on the limit of number of packets and the sizes of the packets increased. The example in column 9, lines 1-10 teaches that the COS level being reduced from 5 to 4, based on the number of received packets, and the length of the packets.

Regarding to claim 15, Mittal et al. also disclosed the method of means for receiving a packet that is placed into a specific COS group (see fig. 6, Packet D), as shown in the drawing, the received packet is specified a COS value of 5 and the length

of a packet 3L (see column 8, lines 46-56); means for determining a fabric-adjusted meter modifier depending on a technology of an uplink being used (see fig. 6, Ingress Traffic Manager 16, and Ingress Memory Hub 18). In the drawing, the Traffic Manager 16 updates the COS value Ingress Memory Hub 18 based on the Total Packets and Total Length of the packet; means for adding the fabric-adjusted meter modifier to a COS meter corresponding to the specific COS group (see column 9, lines 1-10). In the reference, after the Traffic Manager 16 modified the COS value, it will update the value to Ingress Memory Hub.

Regarding to claim 16, Mittal et al. also disclosed the method of defining a user-configurable function by way of a user interface (see fig. 2, Ingress Memory Hub 18, and Ingress Traffic Manager 16). In the drawing, packet is received through the user interface (Memory Hub 18); and assigning the user-configurable function to be a meter modifier function associated with a class of service group in the system (see fig. 2, Ingress Memory Hub 18, and Ingress Traffic Manager 16). In the drawing, packet is received through the user interface (Memory Hub 18), then forward it to Traffic Manager 16, which can be referred to as meter modifier. The user-configuration function can be referred to as limits of packet size or number of packets.

Regarding to claim 17, Mittal et al. also disclosed the method of the user-configurable function depends on a payload size (see fig. 6, Ingress Traffic Manager 16, and Ingress Memory Hub 18). In the drawing, the Traffic Manager 16 updates the COS value to Ingress Memory Hub 18 based on the total packets and total length of the packet. The payload size can be referred as packet length.

Regarding to claim 18, Mittal et al. also disclosed the method of the user-configurable function depends on a current value of the meter (see column 6, lines 26-58). The term current value can be referred to as packet information such as forwarding value, or the flow id value that is currently received. In the reference, the forwarding value, and the flow id value are used as basis of the routing.

Regarding to claim 19, Mittal et al. also disclosed the method of the user-configurable function depends on a last destination of a packet forwarded by the system (see column 7, lines 26-50). In the reference, the packets A, and C are being transmitted to the same destination, and therefore we can say that the configuration function of packet C is depends on the first transmission of packet A.

Regarding to claim 20, Mittal et al. also disclosed the method of the meter function is used to adjust for a fabric uplink technology (see column 3, lines 35-45, and fig. 1B, network 32). As seen in fig. 1B, network 32 can be a LAN, which involved with Ethernet link technology, and the Traffic Manager 16 is depending on the Ethernet technology.

Regarding to claim 21, Mittal et al. also disclosed the method of defining multiple user-configurable meter modifier functions by way of a user interface (see fig. 2, Packet 54), as shown in the drawing, the received multi-packets are specified COS and Payload (see fig. 2, Egress Queue 46, and see column 4, lines 20-40). In the drawing, Memory Hub Controller 44 can be the user interface that first received the packets, and then forward the packet information to Traffic Manager 16, and the queue 47 detects packet length of each packet. The multiple user-configurable meter modifier functions

can be referred to as the packet length of each packet; and assigning each service class of a set of service classes to one of the user-configurable meter modifier functions (see column 9, lines 1-10). In the reference, the COS is modified based on the modifier functions, which can be referred to as packet length.

Claim Rejections – 35 USC § 103

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mittal et al. (Pat No.: 7035212), in view of Norrell et al. (Pub No.: 6874096).

For claim 13, Mittal disclosed the method of the calculation circuitry comprises a technology-specific look-up table (see fig. 2, Ingress Queue 42, and see column 4, lines 18-30).

For claim 7, Mittal et al. disclosed all the subject matter of the claimed invention with the exception of determining the fabric-adjusted meter modifier comprises summing outputs from a plurality of comparators. Norrell et al. from the same or similar fields of endeavor teaches the method of determining the fabric-adjusted meter modifier comprises summing outputs from a plurality of comparators (Norrell et al. see see fig. 2, 202, 204, and 208, and see column 4, lines 29-35). In the reference, the low pass filters 202, and 204 can be interpreted as the comparators, and the summation 208 summed up the outputs of the low pass filters. Thus, its obvious to a person of ordinary skilled in the art at the time of the invention to use the method as taught by Norrell et al. in the network of Mittal et al. The method as taught by Norrell et al. can be implemented into the network of Mittal et al. by adding the packet arrival time detector 142. The motivation for using the method as taught by Norrell et al. in the network of Mittal et al. being that it provides better accuracy in determining an appropriate value to the output.

Regarding to claim 14, Mittal et al. did not disclosed the method of a plurality of comparators and an adder to sum outputs of the comparators. Norrell et al. also teaches a plurality of comparators and an adder to sum outputs of the comparators (Norrell et al. see see fig. 2, 202, 204, and 208, and see column 4, lines 29-35). In the reference, the low pass filters 202, and 204 can be interpreted as the comparators, and the summation 208 summed up the outputs of the low pass filters. Thus, its obvious to a person of ordinary skilled in the art at the time of the invention to use the method as taught by Norrell et al. in the network of Mittal et al. The method as taught by Norrell et al. can be implemented into the network of Mittal et al. by adding the packet arrival time

detector 142. The motivation for using the method as taught by Norrell et al. in the network of Mittal et al. being that it provides better accuracy in determining an appropriate value to the output.

Allowable Subject Matter

4. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art failed to teach to method of determining the fabric-adjusted meter modifier comprises summing outputs from a plurality of comparators with the payload size if specified by a user configurable flag.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jeong et al. (Pub No.: 2004/0233845), Nakayama et al. (Pat No.: 6907001), and Thibodeau et al. (Pub No.: 2004/0179473), are show systems which considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kan Yuen whose telephone number is 571-270-2413. The examiner can normally be reached on Monday-Friday 10:00a.m-3:00p.m EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky O. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ky

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER